



First record of two species of *Gorgonidia* Dyar, 1898 (Lepidoptera: Erebidæ: Arctiinae) from Brazil

José A. Teston^{1*} and Margarida P. de Freitas²

1 Universidade Federal do Oeste do Pará (UFOPA), Programa de Pós-Graduação em Recursos Naturais da Amazônia (PPGRNA) and Instituto de Ciências da Educação (ICED) – Laboratório de Estudos de Lepidópteros Neotropicais (LELN). Rua Vera Paz s/n, CEP 68040-255, Santarém, PA, Brazil

2 Universidade Federal do Oeste do Pará (UFOPA), Programa de Pós-Graduação em Recursos Naturais da Amazônia (PPGRNA). Rua Vera Paz s/n, CEP 68040-255, Santarém, PA, Brazil

* Corresponding author. E-mail: jateston@ufpa.br, jateston@gmail.com

Abstract: This note reports the first record of *Gorgonidia vulcania* Toulgoët, 1987 and *G. whitfordi* (Rothschild, 1909) (Lepidoptera: Erebidæ: Arctiinae) in Brazil. The specimens were found in the Tapajós National Forest, Pará state, Eastern Amazon. The distribution of *G. vulcania* is enlarged 870 km south of its type locality; and the distribution of *G. whitfordi* is enlarged 820 km south of the nearest previously known record for the species.

Key words: Noctuoidea, Arctiini, Phaegopterina, tiger-moths, Neotropics

The genus *Gorgonidia* was described by Dyar in 1898 and its distribution is exclusively Neotropical; currently there are ten described species (Vincent and Laguerre 2014), and among these, four have known distribution in Brazil: *Gorgonidia buckleyi* (Druce, 1883) (Pará), *G. cubotaensis* (Reich, 1938) (Espírito Santo, Rio de Janeiro and São Paulo), *G. harterti* (Rothschild, 1910) (Amazonas and Rondônia) and *G. pallidipennis* (Rothschild, 1910) (Amazonas) (Hawes et al. 2009; Vincent 2012; Vincent and Laguerre 2014; Teston and Correa 2015).

Gorgonidia vulcania Toulgoët, 1987 was described from a male specimen whose type locality is Cayenne in French Guiana; the type is deposited in the collection of the Museum National d'Histoire Naturelle, Paris, France (MNHN). This species is also reported as occurring in Guyana, and can be distinguished by the combination of the following characters: elongated postdiscal grey patch delimited basally by a convex black line, tornal grey patch rounded, very wide and reaching the end of the medial yellow band, and basal yellow band delimited by a very short black line (Vincent 2012).

Gorgonidia whitfordi (Rothschild, 1909) was described from a male and a female specimens whose type locality

is Georgetown in Guyana; the type is deposited in the collection of the Natural History Museum (formerly British Museum [Natural History]), London, UK (BMNH). This species is also reported as occurring in Venezuela (Bolivar) and French Guiana (Nouragues), and can be distinguished by the combination of the following characters: tornal patch as a small black spot, vertex and base of the collar concolorous yellow-orange, distance between the elongate postdiscal grey patch and the postmedial yellow band less than the width of the latter, black lines highlighting the yellow band thick, forewing ground colour uniform orange, hindwings semi-hyaline, light yellow with pink anal margin, and ratio of width: length of elongate postdiscal grey patch > 0.5 (Vincent 2012).

We recorded two individuals of *G. vulcania* (Figure 1), on 5–6 November 2013, and two of *G. whitfordi* (Figure 2) between 7–8 September and 4–5 November 2013, using light traps model Pennsylvania (Figure 3) at the forest canopy (30 m above ground), in the Tapajós National Forest, Municipality of Belterra, state of Pará, Brazil (03°01'05.6" S, 054°58'10.4" W) (Figures 4 and 5).



Figure 1. *Gorgonidia vulcania* Toulgoët, 1987, dorsal view, male. Scale bar = 2cm.



Figure 2. *Gorgonidia whitfordi* (Rothschild, 1909), dorsal view, male. Scale bar = 2cm.

The voucher specimens were deposited in the lepidopterological collection of Laboratório de Estudos de Lepidópteros Neotropicais (LELN) of Programa de Ciências Naturais (PCNAT, UFOPA). Catches were made with permission of ICMBio, under “Autorização para atividades com finalidade científica 30499-2” and “Licença Permanente para Coleta de Material Zoológico 18132-3” from SISBIO, both issued to JAT.

This is the first record for both species in Brazil and it extends the known distribution of *G. vulcania* 870 km south from Cayenne, the closest record for the species, and the distribution of *G. whitfordi* 820 km south from Nouragues research station, the closest record for the species, both sites in French Guyana (Vincent 2012). These are also the first reported occurrences of these species in the forest canopy, 30 m high. These new records increase the number of species of *Gorgonidia* occurring in Brazil (Vincent and Laguerre 2014) to six and the number of species of Arctiinae occurring in Pará state (Teston and Correa 2015) to 533 and highlight the need of sampling in poorly known areas such as in the Brazilian Amazon.

EXAMINED MATERIAL. *Gorgonidia vulcania* Toulgoët, 1987: Brazil, Pará, Belterra, Tapajós National Forest 05–06-XI-2013, 2 males, Freitas, M.P. leg., LELN oo.371



Figure 3. Pennsylvania-type light trap.

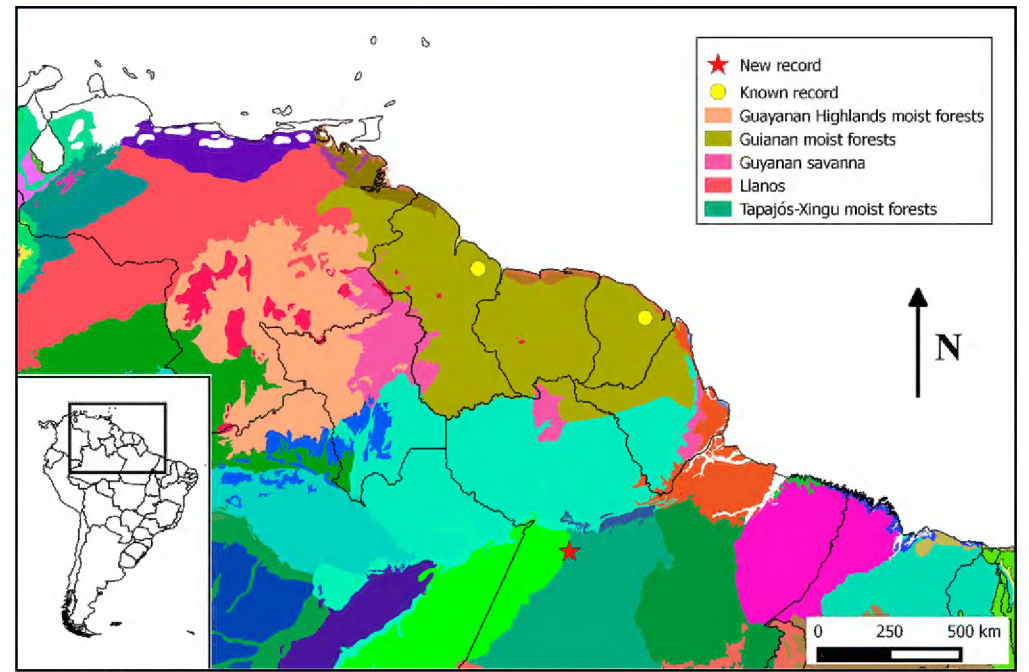


Figure 4. Known geographic distribution and associated ecoregions of *Gorgonidia vulcania* Toulgoët, 1987 (*sensu* Olson et al. 2001).

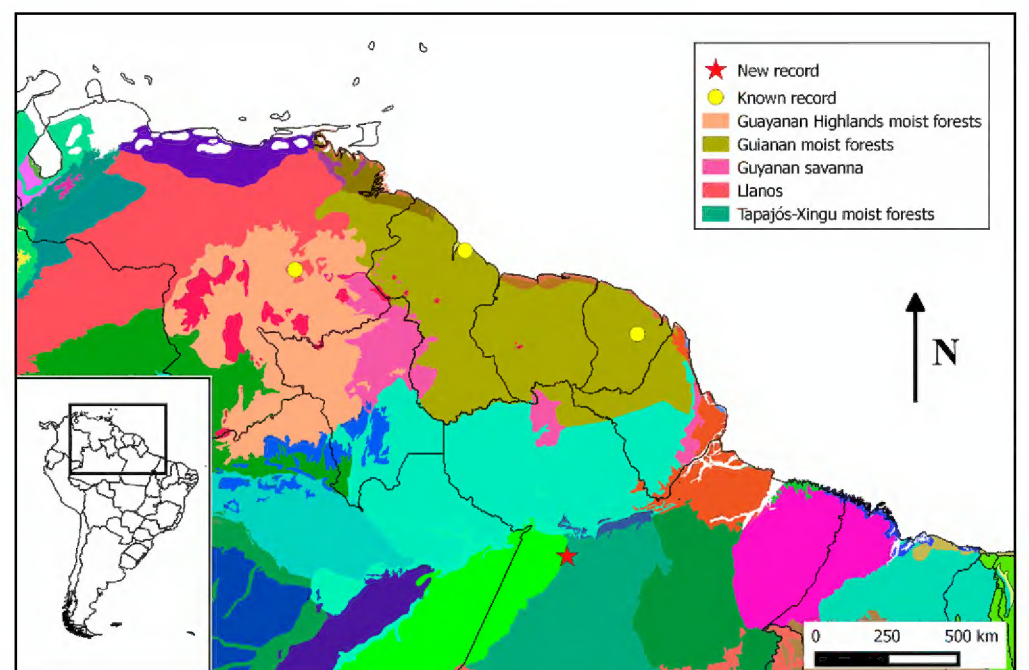


Figure 5. Known geographic distribution and associated ecoregions of *Gorgonidia whitfordi* (Rothschild, 1909) (*sensu* Olson et al. 2001).

(Genitalia were compared to the original drawings published in the de Toulgoët’s paper (1987, op. cit; p. 37)) and LELN oo.372. *Gorgonidia whitfordi* (Rothschild, 1909): Brazil, Pará, Belterra, Tapajós National Forest 07–08-IX-2013, 1 male, Freitas, M.P. leg., LELN oo.373; Brazil, Pará, Belterra, Tapajós National Forest 04–05-XI-2013, 1 male, Freitas, M.P. leg., LELN oo.374.

ACKNOWLEDGEMENTS

LBA-INPA program (Santarém, Pará) for logistical support and access to observation towers, especially Mr. Louro Lima. This publication is part of the RedeLep “Rede Nacional de Pesquisa e Conservação de Lepidópteros” SISBIOTA-Brasil/CNPq (563332/2010-7).

LITERATURE CITED

- Hawes, J., C. da S. Motta, W.L. Overal, J. Barlow, T.A. Gardner and C.A. Peres. 2009. Diversity and composition of amazonian moths in primary, secondary and plantation forest. *Journal of Tropical Ecology* 25(3): 281–300. doi: [10.1017/S0266467409006038](https://doi.org/10.1017/S0266467409006038)
- Olson, D.M., E. Dinerstein, E.D. Wikramanayake, N.D. Burgess, G.V.N. Powell, E.C. Underwood, J.A. D’Amico, I. Itoua, H.E. Strand, J.C. Morrison, C.J. Loucks, T.F. Allnutt, T.H. Ricketts, Y. Kura, J.F. Lamoreux, W.W. Wettengel, P. Hedao

- and K. Kassem. 2001. Terrestrial ecoregions of the world: a new map of life on Earth. *Bioscience* 51(11): 933–938. doi: [10.1641/0006-3568\(2001\)051\[0933:TEOTWA\]2.0.CO;2](https://doi.org/10.1641/0006-3568(2001)051[0933:TEOTWA]2.0.CO;2)
 - Teston, J.A. and D. do C.V. Correa. 2015. The Arctiini (Lepidoptera, Erebidae, Arctiinae) fauna of the Serra do Pardo National Park, Pará, Brazil. *Check List* 11(2): 1613. doi: [10.15560/11.2.1613](https://doi.org/10.15560/11.2.1613)
 - Vincent, B. 2012. A review of the genus *Gorgonidia* Dyar, 1898, with the description of one new species (Lepidoptera: Erebidae, Arctiinae, Arctiini). *The European Entomologist* 4(1): 33–54.
 - Vincent, B. and M. Laguerre. 2014. Catalogue of the Neotropical Arctiini Leach, [1815] (except Ctenuchina Kirby, 1837 and Euchromiina Butler, 1876) (Insecta, Lepidoptera, Erebidae, Arctiinae). *Zoosystema* 36(2): 137–533. doi: [10.5252/z2014n2a1](https://doi.org/10.5252/z2014n2a1)
- Authors' contribution statement:** JAT wrote the text and MPF collected the data.
- Received:** November 2014
Accepted: April 2015
Editorial responsibility: Reza Zahiri